

NEW HOST RECORDS IN THE BRUCHIDAE (COLEOPTERA)

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ABSTRACT

Eight species of the genus *Amblycerus* are reported to feed in seeds of species of the genera *Caesalpinia*, *Cassia*, *Apeiba*, and *Combretum*. *Meibomeus musculus* (Say) feeds in species of *Desmodium* and *Lespedeza*; seven species of *Merobruchus* feed in seeds of species of *Albizia*, *Lysiloma*, *Pithecellobium*, *Acacia*, and *Leucaena*; *Mimosestes nubigens* (Motschulsky) feeds in seeds of *Acacia*; *Sennius morosus* (Sharp) feeds in seeds of *Cassia durangensis* Rose; six species of *Stator* feed in seeds of species of *Acacia*, *Calliandra*, *Lysiloma*, *Leucaena*, and *Mimosa*; and four species of *Zabrotes* feed in seeds of *Cassia* and *Vicia*. All of the plants are in the family Leguminosae except for *Apeiba* (Tiliaceae) and *Combretum* (Combretaceae).

To make them available for current review taxonomic and ecological studies currently in progress, new host records for the genera *Amblycerus*, *Meibomeus*, *Merobruchus*, *Mimosestes*, *Sennius*, *Stator*, and *Zabrotes* are presented below. The species designated by number are either new or too variable to be assigned a name prior to a thorough revision of those genera. J. M. Kingsolver is currently revising *Amblycerus* and *Merobruchus* and will assign names to these numbers when the revisions are published. Unless otherwise indicated, all plants are in the family Leguminosae.

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In the text of this paper C. D. Johnson is abbreviated CDJ and L. J. Bottimer LJB.

Amblycerus sp. #1

1. *Caesalpinia sclerocarpa* Standley: Mexico. Sinaloa: near beach, 6 mi N Mazatlan, 26-II-73 (CDJ #215-73).

Amblycerus sp. #2

1. *Cassia berlandieri* Bentham: Mexico. Nayarit: 29 mi SW Compostela, 1-III-73 (CDJ #302-73).

Amblycerus sp. #3

1. *Cassia bicapsularis* Linnaeus: Mexico. Sinaloa: 3 mi NE Los Mochis, 20-VIII-65 (CDJ). Oaxaca: 5 mi E Temascal, 24-VI-64 (D. H. Janzen).
2. *C. occidentalis* Linnaeus: Mexico. Nayarit: 4 mi E San Blas, 27-VIII-65 (CDJ).

Amblycerus sp. #4

1. *Cassia emarginata* Linnaeus: Mexico. Colima: 11 mi NE Armeria, 7-III-73 (CDJ #390-73).

Amblycerus sp. #5

1. *Cassia hintoni* Sandwith: Mexico. Jalisco: 22 mi N Barra de Navidad, 2-I-73 (CDJ #28-73).

Amblycerus sp. #6

1. *Cassia multijuga* Rich.: Florida. Dade Co.: Homestead, 8-IV-60 (LJB #106f).

Amblycerus sp. #7

1. *Apeiba membranacea* Spruce ex Benth.: Panama (LJB). (Tiliaceae)

Amblycerus sp. #8

1. *Combretum fruticosum* (Loefl.) Stuntz: Colima: 7 mi E Manzanillo, 7-III-73 (CDJ #408-73). Jalisco: 10 mi S Puerto Vallarta, 9-III-73 (CDJ #460-73). (Combretaceae)

Meibomeus musculus (Say)

1. *Desmodium canescens* DC: Florida. Polk Co.: Lake Alfred, 6-VII-28 (LJB #55a8).
2. *D. purpureum* Hook. & Arn.: Florida. Alachua Co.: Gainesville, 4-VIII-37 (A. N. Tissot; LJB #761).
3. *D. tenuifolium* Torr. & Gray: Florida. Polk Co.: Dundee, VII-28 (LJB #55a5).
4. *D. triflorum* DC: Florida. Orange Co.: 9 mi S Orlando, 25-VI-28 (LJB #55b2).
5. *Lespedeza hirta* Ell.: New Jersey. Camden Co.: Haddon Heights, 30-VII-36 (LJB #741).

Merobruchus insolitus (Sharp)

1. *Albizia lebbek* (L.) Bentham: Mexico. Baja California Sur: San Jose Del Cabo, 27-XII-75 (CDJ #129-75).
2. *A. occidentalis* Brandege: Mexico. Baja California Sur: 700', 12 mi N San Jose Del Cabo, 28-XII-75 (CDJ #141-75).
3. *A. sinaloensis* Britt. & Rose: Mexico. Sonora: Alamos, 30 December 1975 (CDJ #146-75).
4. *Lysiloma divaricata* (Jacq.) Macbride: Mexico. Sinaloa: 30 mi S Guamuchil, 7-I-73 (CDJ #137-73). Jalisco: ca 4000', 3 mi S Tecolatlán, 1-I-73 (CDJ #3-73). Sonora: 10 mi N Guaymas, 3-I-78 (CDJ #220-78).
5. *Lysiloma thornberi* Britt. & Rose: Arizona. Pima Co.: Chimenea Cyn., Rincon Mts., 14-X-76 (CDJ # #37-76 & 38-76).
6. *Pithecellobium* aff. *mangense* (Jacq.) Macbride: Mexico. Nayarit: 2 mi NW Aca-poneta, 10-III-73 (CDJ #482-73).
7. *P. sonorae* S. Wats.: Mexico. Sonora: 9 mi E Navojoa, 30-XII-75 (CDJ #151-75).

M. julianus (Horn)

1. *Acacia roemeriana* Scheele: Texas. Menard Co.: Menard, 27-VI-46 (LJB # #86h & 86i). Kimble Co.: Junction, 17-VI-56 (LJB #97i).

M. knulli (White)

1. *Lysiloma thornberi* Britt. & Rose: Arizona. Pima Co.: Chimenea Cyn., Rincon Mts., 14-X-76 (CDJ # #37-76 & 38-76).

M. placidus (Horn)

1. *Acacia texensis* Torr. & Gray: Texas. Big Bend National Park: Oak Spring, 1-V-59 (LJB #104q).

Merobruchus sp. #1

1. *Acacia coulteri* Bentham: Mexico. Sonora: 8 mi E Navojoa, 24-II-73 (CDJ #179-73); Lake Mocuzari, 29-XII-77 (CDJ #191-77); 9 mi E Navojoa, 30-XII-75 (CDJ #153-75).

Merobruchus sp. #2

1. *Pithecellobium* aff. *mangense* (Jacq.) Macbride: Mexico. Sinaloa: 38 mi S Culiacan, 25-II-73 (CDJ #196-73). Nayarit: 2 mi NW Acaponeta, 10-III-73 (CDJ #482-73).
2. *P. undulatum* (Britt. & Rose) Gentry: Mexico. Sonora: 13 mi NW Alamos & 4 mi NW Alamos, 23-XII-76 (CDJ # #165-76 & 175-76); 5 mi W Alamos, 26-XII-76 (CDJ #186-76); 6 mi W Alamos, 27-XII-77 (CDJ #168-77); 2 mi E Alamos, 29-XII-77 (CDJ #189-77).

Merobruchus sp. #3

1. *Acacia* aff. *riparioides* (Britt. & Rose) Standley: Mexico. Michoacan: 5300', 16 mi E Jiquilpan, 9-VII-68 (CDJ #256-68).
2. *Leucaena guatemalensis* Britt. & Rose: Mexico. Colima: 3 mi S Colima, 7-III-73 (CDJ #373-73).
3. *Lysiloma desmostachys* Bentham: Mexico. Colima: 7 mi S Colima, 7-III-73 (CDJ #380-73).

Merobruchus sp. #4

1. *Acacia* sp.: Mexico. Jalisco: 56 mi S Puerto Vallarta, 9-III-73 (CDJ #446-73).

Mimosestes nubigenus (Motschulsky)

1. *Acacia tortuosa* Willd.: Mexico. Sonora: 13 mi NW Navojoa, 30-XII-77 (CDJ #206-77).

Sennius medialis (Sharp)

1. *Cassia occidentalis* Linnaeus: Mexico. Michoacan: Patzcuaro, 9-VIII-49 (LJB #125f)

Sennius morosus (Sharp)

1. *Cassia durangensis* Rose: Texas: Santa Helena, 1900', 10-II-26 (LJB #54rl). Big Bend National Park: Boquillas Canyon, 5-V-56 (LJB #96v); Hot Springs, 19-VI-57 (LJB #100q).

Stator chihuahua Johnson and Kingsolver

1. *Acacia angustissima* (Mill.) Kuntze: Mexico. Sonora: ca 2800', 8 mi S Benjamin Hill, 28-XII-76 (CDJ #221-76); ca 2400', 15 mi S Benjamin Hill, 3-I-78 (CDJ #233-78).
2. *A. constricta* Bentham: Arizona. Pima Co.: 1 mi S Hdqtrs., Saguaro Nat'l. Mon. East, 6-X-77 (CDJ #96-77); 31 mi NE Sells, 8-X-77 (CDJ #134-77).
3. *Calliandra eriophylla* Bentham: Arizona. Yavapai Co.: Black Canyon City, 30-V-76 (CDJ #2-76).
4. *Lysiloma thornberi* Britt. & Rose: Arizona. Pima Co.: ca 3700', Chimenea Cyn., Rincon Mts., 14-X-76 (CDJ #37-76).

Stator limbatus (Horn)

1. *Acacia goldmanii* (Br. & Rose) Wiggins: Mexico. Baja California Sur: 9 mi S Villa Constitucion, 25-XII-75 (CDJ # 102-75).
2. *Calliandra eriophylla* Bentham: Arizona. Yavapai Co.: Black Canyon City, 30-V-76 (CDJ # #1-76 & 2-76).
3. *Leucaena guatemalensis* Britt. & Rose: Mexico. Colima: ca 1500', 3 mi S Colima, 7-III-73 (CDJ # 373-73).
4. *Lysiloma thornberi* Britt. & Rose: Arizona. Pima Co.: ca 3700', Chimenea Cyn., Rincon Mts., 14-X-76 (CDJ # #37-76 & 38-76).

Stator pruininus (Horn)

1. *Acacia greggii* Gray: Arizona. Yavapai Co.: Clear Creek Camp, 7 mi SE Camp Verde, 17-IX-77 (CDJ # 87-77). Pima Co.: ca 2600', 2.3 mi S Sells, 15-VIII-77 (CDJ # 70-77).
2. *Calliandra eriophylla* Bentham: Arizona. Yavapai Co.: Black Canyon City, 30-V-76 (CDJ # #1-76 & 2-76).

Stator pygidialis (Schaeffer)

1. *Calliandra reticulata* Gray: Arizona. Cochise Co.: Naco, 7-X-77 (CDJ # 116-77).

Stator sordidus (Horn)

1. *Lysiloma divaricata* (Jacq.) Macbride: Mexico. Sonora: 14 mi E Navojoa, 26-XII-76 (CDJ # 191-76); 10 mi N Guaymas, 27-XII-76 (CDJ # 203-76); 3 mi W Alamos, 27-XII-77 (CDJ # 165-77); ca .5 mi E Alamos, 28-XII-77 (CDJ # 176-77); 10 mi E Navojoa, 30-XII-77 (CDJ # 201-77); 10 mi N Guaymas, 3-I-78 (CDJ # 223-78).
2. *Mimosa laxiflora* Bentham: Mexico. Sonora: 10 mi E Navojoa, 30-XII-78 (CDJ # 236-78).

Stator vachelliae Bottimer

1. *Acacia cymbispina* Sprague & Riley: Mexico. Sonora: 13 mi NW Navojoa, 30-XII-77 & 26-XII-76 (CDJ # #208-77 & 197-76).
2. *A. farnesiana* (L.) Willd.: Mexico. Sonora: 11 mi S Hermosillo, 27-XII-76 (CDJ # 212-76); 13 mi NW Navojoa, 30-XII-77 (CDJ # 208-77).

Stator vittatithorax (Pic)

1. *Lysiloma desmostachys* Bentham: Mexico. Colima: ca 1100', 7 mi S Colima, 7-III-73 (CDJ # 380-73).

Zabrotes interstitialis (Chevrolat)

1. *Cassia moschata* H.B.K.: Panama. Canal Zone: Ft. Clayton, 25-II-64 (LJB # 121u).

Z. planifrons Horn

1. *Cassia leptadenia* Greenm: Arizona. Santa Cruz Co.: ca 4200', 6 mi E Ruby, 15-X-76 (CDJ # 63-76).

Z. spectabilis Horn

1. *Cassia roemeriana* Scheele: Texas, Menard Co.: Menard, 13-14-VI-46 (LJB # 86b).

Zabrotes sp. #1

1. *Vicia leavenworthii* Torr. & Gray: Texas: Bexar Co., 10-V-62 (LJB # 112u).